# Risk Management and Acquisition Success

Nov 01
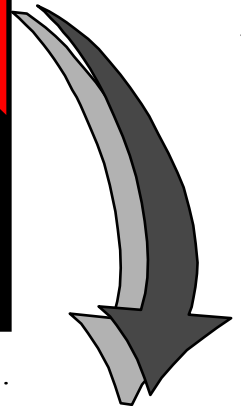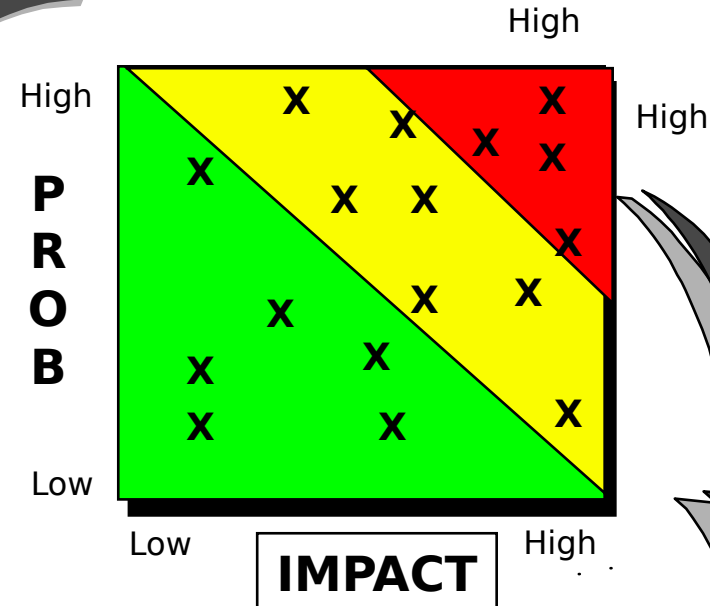
# Risk Driven Acquisition Strategy

## Risk Tables

| Requirement | Risk | Impact | Prob | Rating |
|---|---|---|---|---|
| **Technical Risks** | | | | |
| ----- | | | | |
| **Schedule Risks** | | | | |
| ----- | | | | |
| **Cost Risks** | | | | |
| ----- | | | | |

High

High

**P R O B**

High

High

X  X  X
X  X  X
X  X  X  X
X  X  X
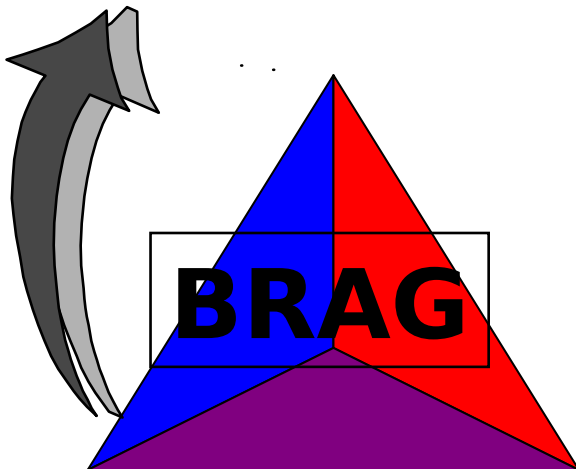X  X  X  X
X  X
X  X

Low

Low

High

**IMPACT**

**Acquisition Strategy**
- **RFP Content (SDS)**
- **Evaluation Criteria (Section M)**
- **Proposal Preparation (Section L)**
- **Incentives (Contract type)**
- **Post Award Management**

**BRAG**

# What is Risk Management?

- **Organized method of identifying and measuring risk and developing, selecting, and managing options for handling these risks *(OMB Circular A-11)***

- **Act or practice of controlling risk using a process to include:**
  - **Identifying and tracking risk areas**
  - **Developing risk mitigation plans as part of risk handling**
  - **Monitoring risks and performing risk assessments to determine how risks have changed.**

- **Method of managing that concentrates on identifying and controlling the areas or events that have a potential of causing unwanted change**

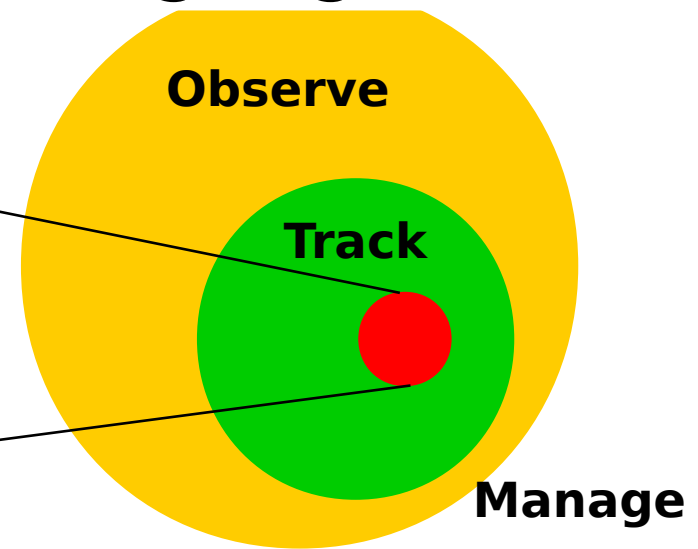*It is no more and no less than informed program management!!*

# From Oversight to Insight

**Where we've been:**

Observe
Manage

**Risk Avoidance**

**Where we're going:**

Observe
Track
Manage
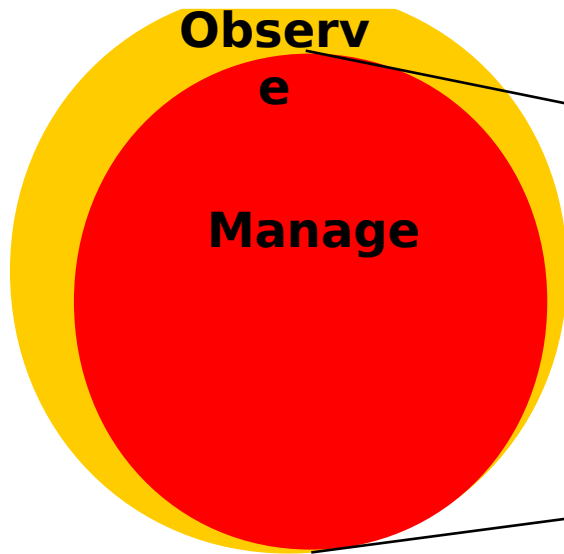
**Risk Management**

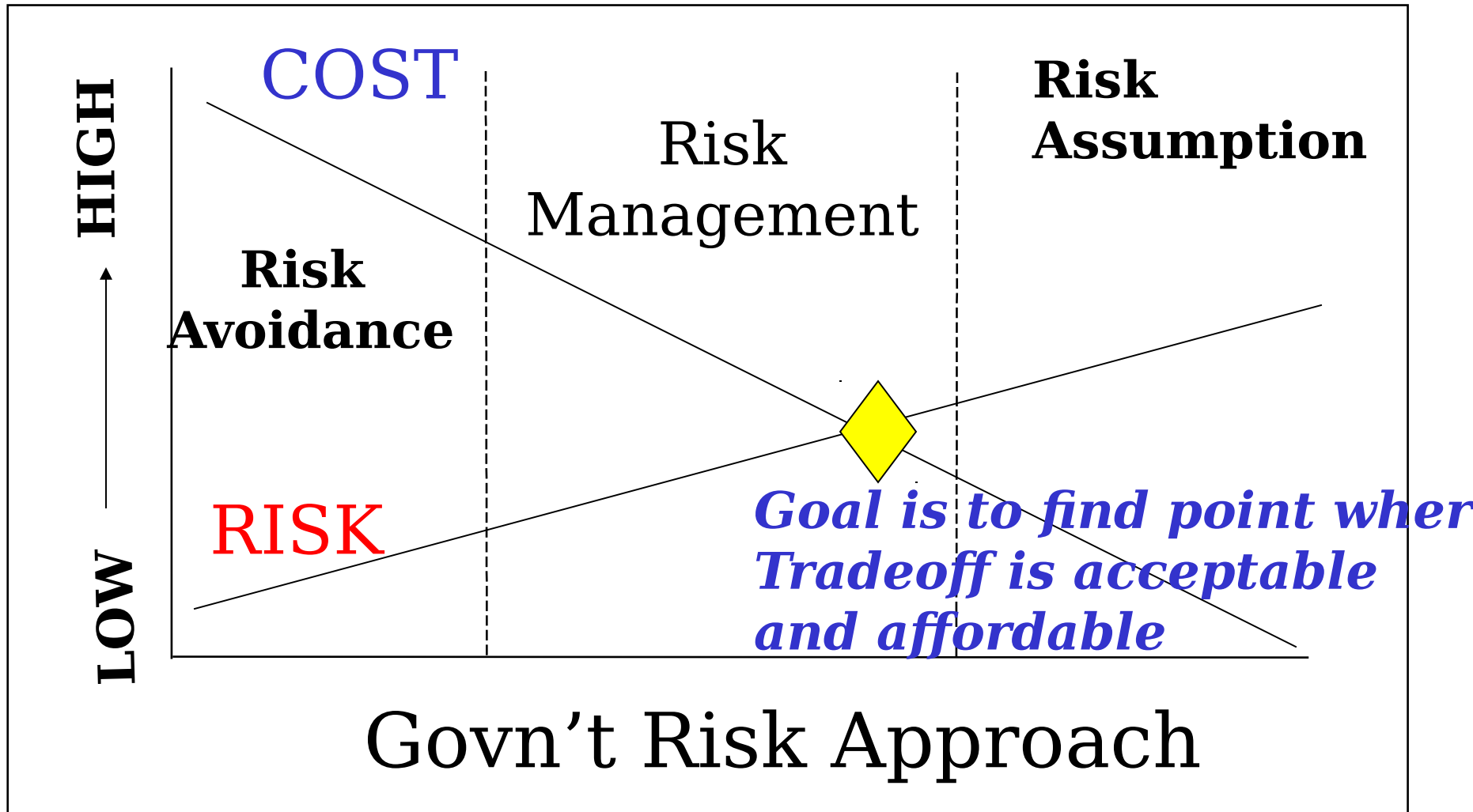Available Resource Reduction

# What Does It Take?

**Successful BRAGS**

- All stakeholders share a common vi
- Open discussion - no secrets
- Qualified, multi-disciplined, empowered team members
- Consistent, success-oriented, proactive participation
- Continuous communication
- Reasoned disagreement
- Issues raised and resolved early

# Risk vs Cost to Government



HIGH

LOW

COST

RISK

**Risk Avoidance**

Risk Management

**Risk Assumption**

*Goal is to find point where Tradeoff is acceptable and affordable*

Govn't Risk Approach

# Risk Management Process Model

Risk Planning

Risk Assessment

Risk Handling

Risk Monitoring

Feedback

Risk Identification

Risk Analysis
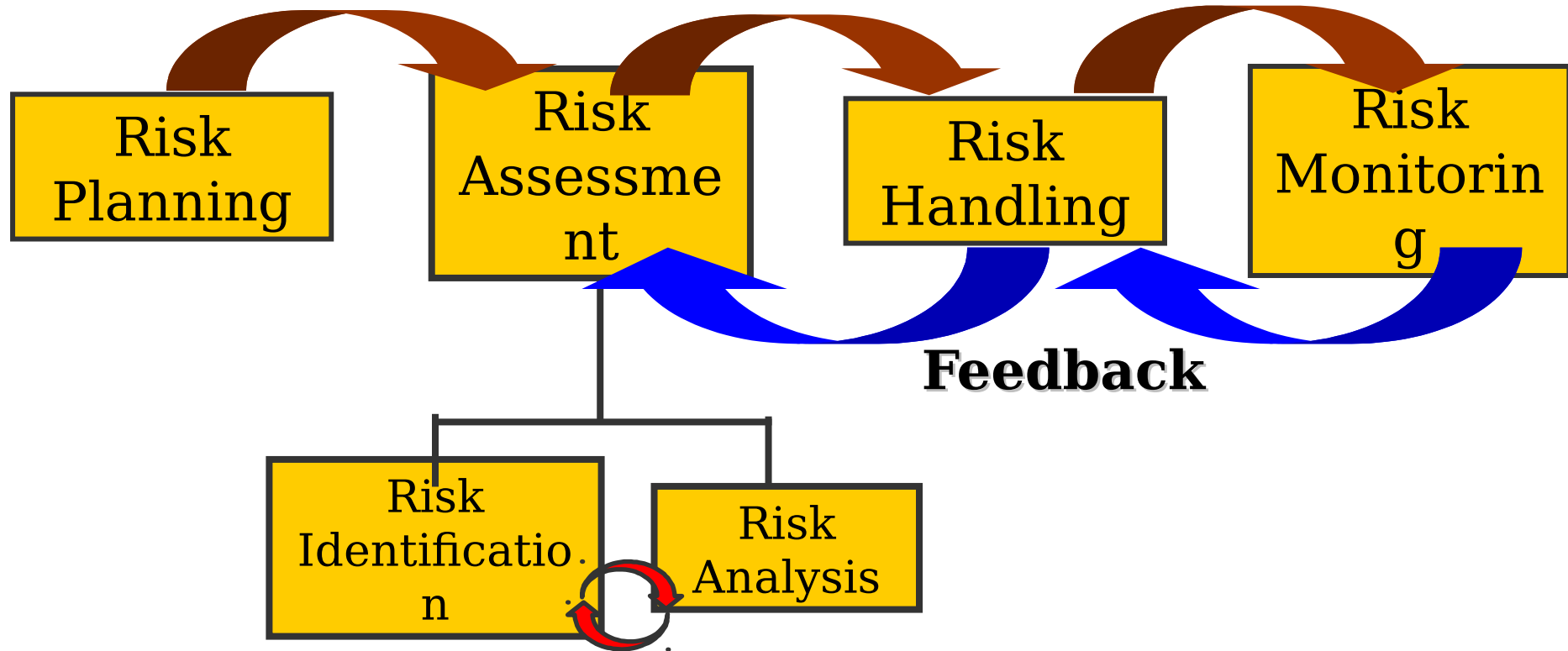
# Risk Assessment

- The process of *evaluating risks for their potential to impact performance, cost and schedule* objectives

- Requires *focused integrated team effort* to provide an in-depth understanding of the sources and degree of risk.

- Process *includes assessing* each risk's *probability of occurrence and the consequence* if it does occur.

- Risk assessment is the *problem definition* stage of risk management that *identifies, analyzes*, and quantifies program events in terms of probability and consequences...... it is probably the *most difficult and time consuming* part of the management process

    (*DSMC Risk Management Guide for DoD Acquisition P. 2.6.2*)

# Risk Areas
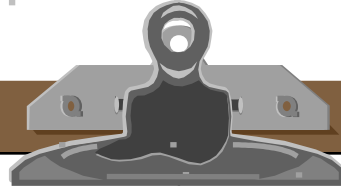
- ☒ Performance Requirements
- ☒ Mission Changes
- ☒ Technology
- ☒ Logistics
- ☒ Facilities
- ☒ Capability of Marketplace
- ☒ Funding
- ☒ Management
- ☒ Contract Transition
- ☒ Environmental issues
- ☒ Strikes
- ☒ Government Supplied Property
  *(GFP, GFE, GFI)*
  - ☒ etc...

# Tools to Use

- There are a variety of approaches that can be used to identify risks - the key is to just do it
  - Cause and effect
  - "What if" analysis
  - Scenario Process
  - Listing and prioritizing
  - Logic Diagram
  - Change Analysis

# Risk Identification and Analysis

- Identify the risks associated with the requirement
- **Rank each risk on:**
  - – **Probability**
  - – **Impact/Consequence**
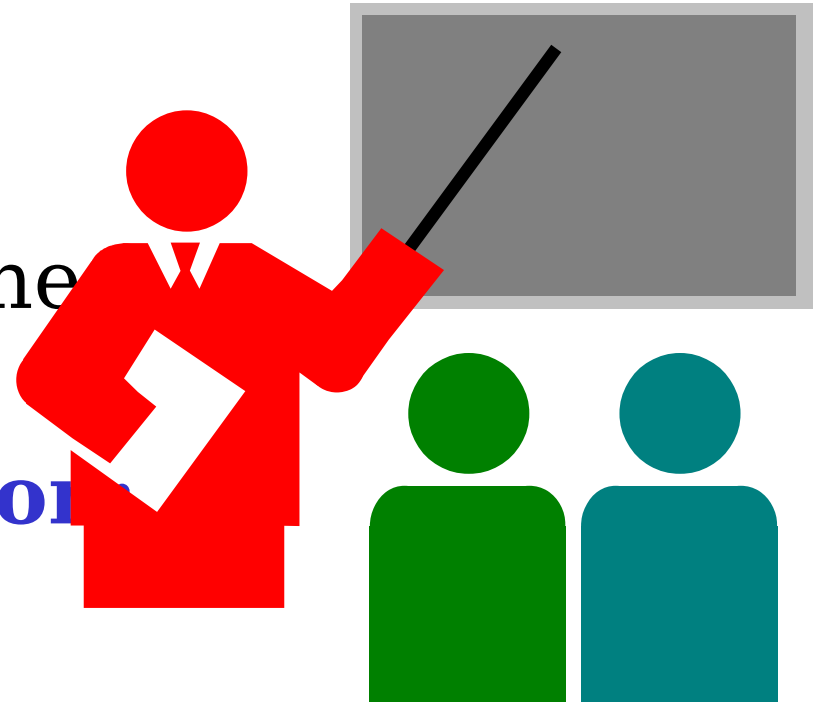
# Probability Ratings

Probability of risk becoming reality:

- Not Likely - **(0 - 10%)** Know this most likely will not occur
- Low Likelihood - **(11 - 40%)** Believe this will not occur
- Likely - **(41 - 60%)** Toss-of-coin
- Highly Likely - **(61 - 90%)** Believe this will occur
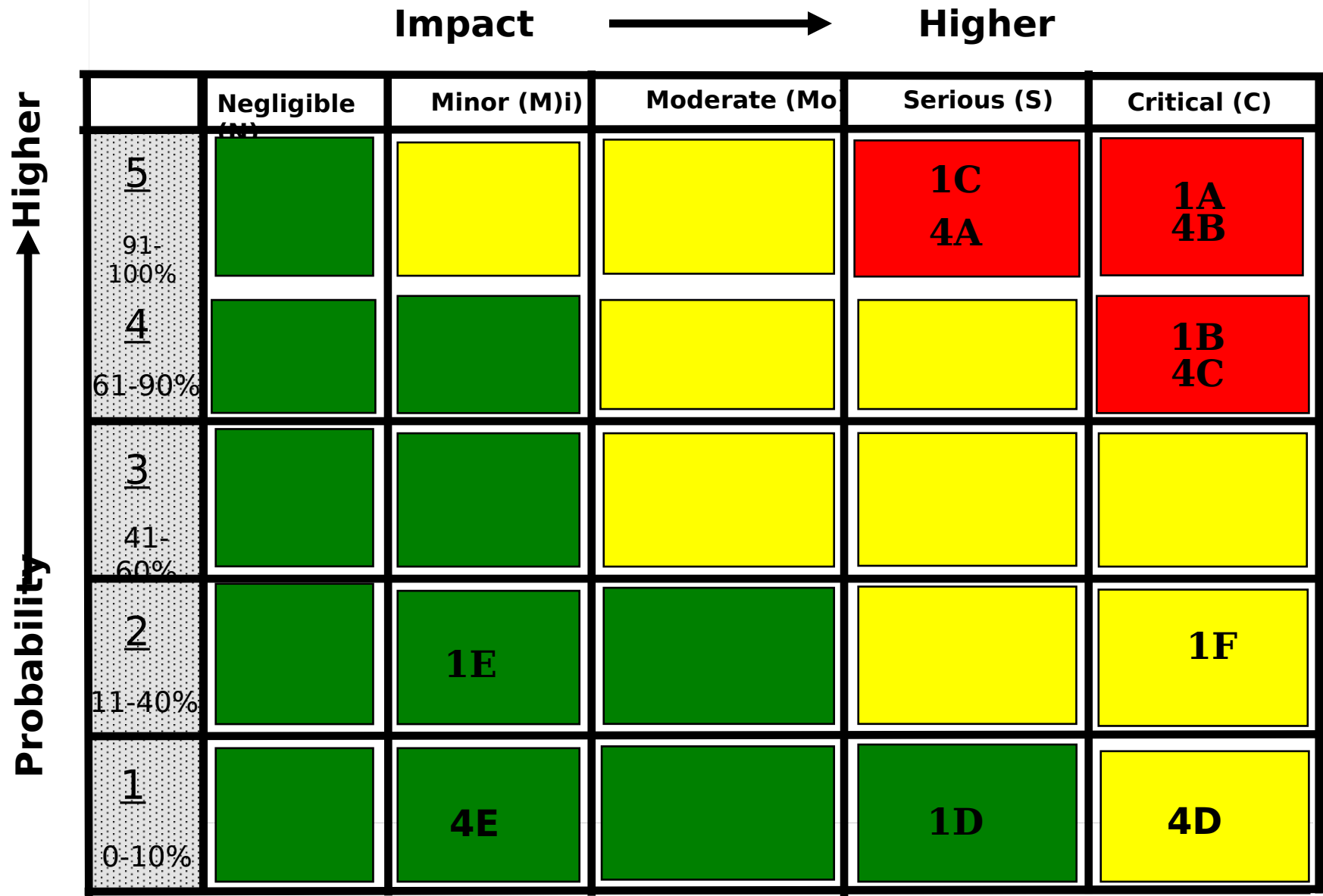- Near Certainty - **(91 - 100%)** Know this most likely will occur

# Consequence Ratings

Cost/schedule/performance impact of risk?

- Negligible:  **An event which, if it occurred, would have almost no effect on the program**
- Minor:  **An event which, if it occurred, would cause only a small increase in program cost and/or schedule.  Requirements would still be achieved**
- Moderate: **An event which, if it occurred, would cause moderate cost/schedule increases, but the requirements would still be achieved**
- Serious: **An event which, if it occurred, would cause serious cost/schedule increases.  Secondary requirements may not be achieved**
- Critical:  **An event which, if it occurred, would cause program failure**

# Probability/Consequence Screening Example
# Establish Scatter Diagram Zones

**Impact** ———————▶ **Higher**

| Probability | Negligible (N) | Minor (M)i | Moderate (Mo) | Serious (S) | Critical (C) |
|---|---|---|---|---|---|
| **5** 91-100% | | | | 1C 4A | 1A 4B |
| **4** 61-90% | | | | | 1B 4C |
| **3** 41-60% | | | | | |
| **2** 11-40% | | 1E | | | 1F |
| **1** 0-10% | | 4E | | 1D | 4D |

# Risk Handling

- Now that you have assessed the risks how do you deal them?
  - Avoid
  - Control
  - Transfer
  - Assume

# Probability/Consequence Screening to RFP

- Determine requirements and group
  - Technical, cost, schedule, etc.
- Identify risks to meeting each requirement
- Assign probability and consequence ratings to each risk
- Plot on scatter diagram
- Establish scatter diagram zones
- Apply the results
  - Acquisition Strategy, RFP Development, etc.

# Example Risk Handling Plan

| RISK | APPROACH |
|---|---|
| C8A – Contractor has ineffective Program Management, requiring excessive Gov't Oversight | • RFP Discriminator:  Evaluate past performance in effective management.<br>• Incentivize through Award Fee or Incentive Fee in contract structure |
| P9A – Contractor does not perform adequate testing due to financial contraints<br>P10A – Contractor does not provide updates to the Performance Spec due to financial contraints. | • Program can shift resources to complete testing or Spec as tradeoff in requirement<br>• RFP Discriminator: Scrutinize cost mgt & cost realism in proposal and cost mgt in past performance. |
| P10B – Contractor does not update Performance Spec due to poor contract performance / lack of technical ability | • RFP Discriminator: Past  Performance in .<br>• RFP Discriminator: Technical Experience – risk of approach in proposed sample taks |

# *Risk Handling Plans*

- Risk handling techniques in acq. strategy:
  - Competition:  **maintaining competition as long as possible during program phases can lower risk (e.g., ktr that can better mitigate risk rises to top, ktr assumes more risk)**
  - Commerciality:  **use of commercial products/services drives down schedule, cost, and performance risks**
  -  Contract incentives:  **in cost-plus contracts, ktr realizes higher fee/rate of return by decreasing costs or by meeting high risk performance targets; second sourcing; sharing cost savings w/ prime and subs**

# *Risk Handling Plans continued*

- Risk handling techniques in acq. strategy:
  - Market research: **vital tool to identify risk reducing opportunities (e.g., lower risk design approaches, commercial opportunities, competition)**
  - User/ktr involvement: **greater involvement drives risk down (e.g., have users/ktrs involved in requirements definition, cost/performance trade-offs, risk mgmt, get feedback through RFIs, draft RFPs, and Industry Days, share data/lessons learned with contractors)**

# *Risk Handling Plans Continued*

- Risk handling techniques in acq. strategy:
  - Contract Types:
    - Cost Reimbursable (requirements and costs uncertain): Gov. assumes risk - benefiting, if actual cost lower than expected; losing, if work not completed within expected cost
      - Fixed Fee:  high technology risk; performance/cost targets difficult to define
      - Award Fee:  judgmental standards can be fairly applied; suitable for large scale programs
      - Incentive Fee:  objective performance/cost targets can be established
    - Firm Fixed Price (requirements well defined; costs accurately estimated):  Ktr assumes risks

# Discriminators

- Steps to development of effective discriminators:
  - Develop, through risk analysis, criteria that addresses high program risks:
    - Must be important to the program
    - Used as tool to reduce risk
  - Develop, through market research, min. capability or performance value to apply to criteria:
    - Know capabilities of potential offerors
    - Set min. too high, everyone fails; too low, everyone passes
  - Determine how min. value can be exceeded in a beneficial way, and how it can be captured by the Gov.
- Performance-Price Tradeoff (PPT) Discriminators:
  - Developed same way as for Full Trade Off (FTO)
  - No exceedance allowed; pass/fail only

# Risk Monitoring

- Systematically tracks and evaluates effectiveness of risk handling actions
  - Measures against established metrics
  - Provides basis for developing additional handling options and identifying new risks
- Establishes a management indicator system for the program that the PM uses to evaluate program status

# Risk Monitoring

- Risk Monitoring:
  - Cost and schedule:
    - Earned Value Management - periodic comparisons of actual work accomplished with work planned and budgeted
    - Cost status reports - used to monitor cost-related risks
    - Schedule analysis - used to monitor schedule-related risks

# Risk Monitoring Techniques

- Develop Quality Assurance Surveillance Plan based on risks associated with requirement in light of  SOW requirements and Service Delivery Summary